DATA ITEM DESCRIPTION

TITLE: IPMR Integrated Program Management Report (IPMR)
NUMBER: DI-MGMT-81466B **APPROVAL DATE**: Draft **AMSC NUMBER**: D7549
LIMITATION: **DTIC APPLICABLE**: **GIDEP APPLICABLE**:
PREPARING ACTIVITY: OUSD (AT&L) PARCA

APPLICABLE FORMS: DD Forms are available and shall be used to submit required formats as follows:

IPMR Format DD Form Number.
Work Breakdown Structure 2734/1 1
Organizational Categories 2734/2 2
Baseline 2734/3 3
Staffing 2734/4 4

USE/RELATIONSHIP: This report consists of six formats containing data for measuring contractors' cost and schedule performance on Department of Defense (DoD) acquisition contracts. Format 1 reports cost and schedule performance data by product-oriented Work Breakdown Structure (WBS) elements, the hardware, software, and services the Government is buying. Format 2 provides the same data by the contractor's organization (functional or Integrated Product Team (IPT) structure). Format 3 provides the budget baseline plan against which performance is measured. Format 4 provides staffing forecasts for correlation with the budget plan and cost estimates. Format 5 (is a narrative report used to explain significant cost and schedule variances and other identified information. Format 6 is a report containing the Integrated Master Schedule (IMS). This schedule contains the networked, detailed tasks/activities in the PMB.

IPMR data will be used by DoD system managers to: (1) integrate cost and schedule performance data with technical performance measures, (2) identify the magnitude and impact of actual and potential problem areas causing significant cost and schedule variances, (3) Forecast schedule completions and (4) provide valid, timely program status information to higher management.

The IPMR is a management tool that provides timely, reliable data. The IPMR's primary value to the Government is its ability to reflect current contract status and reasonably project future program performance. It is important that the IPMR be as accurate as possible so it may be used to facilitate informed, timely decisions. It will be used by the DoD component staff, including program managers, engineers, cost estimators, and financial management personnel, to confirm, quantify, and track known or emerging contract problems and serve as a basis for communicating with the contractor. The IPMR data shall accurately reflect how work is being planned, performed, and statused and shall be consistent with the actual contract status.

a. This Data Item Description (DID) contains the format and content preparation instructions for the data product generated by the specific and discrete task requirements as delineated in the contract.

b. This DID may be used in conjunction with the Contract Funds Status

Report (CFSR) DID, DI-MGMT-81468; the Contract Work Breakdown Structure (CWBS) DID, DI-MGMT-81334C; the Cost Data Summary Report DID, DI-FNCL-81565A; and the Functional Cost-Hour and Progress Curve Report DID, DI-FNCL-81566A. The same WBS shall be used for the Integrated Master Plan (IMP), IPMR, and be consistent with Cost and Software Data Reporting (CSDR) as applicable.

c. The IPMR shall be used to obtain cost and schedule performance information on contracts requiring compliance with the American National Standards Institute/Electronic Industries Alliance Standard 748 (ANSI/EIA-748), Earned Value Management Systems (EVMS) (current version in effect at time of contract award). Refer to the Federal Acquisition Regulation (FAR) or Defense Federal Acquisition Regulation Supplement (DFARS) clause on contract. The IPMR data elements shall reflect the output of the contractor's ANSI/EIA-748 compliant integrated management system.

d. The IPMR shall be required no less frequently than monthly. Formats 1-4, and 6 and the corresponding electronic data file shall be submitted to the procuring activity no later than 10 working days following the contractor’s accounting period cutoff date. Format 5 is required 13 working days following the contractor’s accounting period cutoff date. Reports may reflect data either as of the end of the calendar month or as of the contractor's accounting period cutoff date, provided it is consistent with the reporting period of the Format 6. (Note: Contractors may elect to attach subcontractor Format 5 reporting and cross reference this analysis in the Format 5 reporting submitted to the Government to gain time efficiencies and meet submission dates.) The Government may require the contractor to attach a complete copy of the subcontractors IPMR if the subcontracted effort is critical to the Government. For Format 6, the government may require the contractor to submit the digital subcontractor submission.

e. The Government and supplier may agree to consolidated reporting after the significant deliveries have been completed. The report may be reduced to formats 1, 5, and 6 only and reduce the Format 1 reporting to WBS Elements at level 2. (See section g.)

f. Unless otherwise provided in the contract, data reported in the IPMR shall pertain to all authorized contract work, including both priced and unpriced effort.

g. Formats 1, 5, and 6 are mandatory in all cases. Formats 2, 3, and 4 are optional in some cases. Refer to the Earned Value Management Implementation Guide (EVMIG) for guidance on tailoring reporting.

h. Variance analysis thresholds which, if exceeded, require problem analysis and narrative explanations in Format 5 [See paragraph 3.6.9.3 for the threshold requirement). If the contract does not specify variance analysis thresholds in the IPMR CDRL, the contractor shall provide appropriate variance analyses. (See 3.6.9 below.)

The Format 6 IMS will be used to verify attainability of contract objectives, to evaluate progress toward meeting program objectives,

and to integrate the program schedule activities with all related components. This format is applicable to development, major modification, and low rate initial production efforts; it is not typically applied to full rate production efforts. Format 6 may be separately required from the other IPMR formats as applicable. Where Format 6 is applied separately the following sections of IPMR are applicable: a, b, c, d, f, i, j, k, and section 2.7.

Subject to g., the IPMR Contract Data Requirements List (CDRL) may be tailored. Requiring more information in the IPMR CDRL than specified in this DID is contrary to DoD policy. All negotiated reporting provisions shall be specified in the contract. Refer to the EVMIG for guidance on tailoring reporting.

REQUIREMENTS:

1. Definitions

a. Control Account – The control account is the point where the WBS tasks and OBS responsibility intersect. It is defined as the point where a single functional organization or integrated product team has responsibility for work defined to a single WBS element. The Control Account is determined as defined by the contractor's documented ANSI-EIA 748 consistent process.

b. Reporting Level – The level of WBS reporting for human readable Formats 1-5.

2. Format. The following format requirements apply to Formats 1-6 and the electronic submission.

a. All formats shall be submitted electronically. Formats 1-4, and 6 shall be submitted in accordance with the UN/CEFACT (United Nations Centre for Trade Facilitation and Electronic Business) XML schemas, further defined for DoD use by standard guidelines. Format 5 shall be submitted in contractor format.

1. Formats 1-4 are submitted using the UN/CEFACT CPR XML template. Format 6 is submitted via the UN/CEFACT IMS XML template.

2. The CPR UN/CEFACT XML format is required at the control account level or lower.

b. Formats 1-5 are required additionally to be submitted in a human readable format.

c. Format 6 shall be submitted in the contractor's native IMS schedule electronic file.

3. Content. The IPMR shall contain the following:

3.1 Heading Information - Formats 1 - 4. Preparation instructions for Heading Information (Blocks 1 through 4) apply to Formats 1 through 4.

3.1.1 Contractor. Enter in Block 1.a the contractor's name and division (if applicable). Enter in Block 1.b the facility location and mailing address of the reporting contractor.

3.1.2 Contract. Enter the contract name in Block 2.a, the contract

number(and the applicable Contract Line Item Number(s) (CLIN(s)) in Block 2.b, the contract type in Block 2.c, and the contract share ratio (if applicable) in Block 2.d.

3.1.3 Program. Enter in Block 3.a the program name, number, acronym, type, model, and series, or other designation of the prime item(s) purchased under the contract. Indicate the program phase (development, production, etc.) in Block 3.b. Indicate whether the contractor's EVMS has been accepted by the Government and the date of the acceptance. (Note: The contractor may have several agencies or divisions providing separate validations.) This block shall be completed as applies to the particular contract/site and the date shall be the date of the Advance Agreement, if applicable, or the date of the letter of acceptance from the agency. Enter N/A if neither an Advanced Agreement nor agency acceptance letter is applicable to the program/site.

3.1.4 Report Period. Enter the beginning date in Block 4.a and the ending date in Block 4.b of the period covered by the report.

3.1.5 Security Classification. Enter the appropriate security classification at the top and bottom of each page.

3.1.6 Dollars in. If reported dollar amounts are in thousands, millions, or billions, enter the factor at the top of each page.

3.2 Format 1 - Work Breakdown Structure.

a. Submission of Format 1 shall utilize a product-oriented WBS consistent with the WBS Standard, MIL- STD-881 (Current version at time of award), and the CWBS DID, DI-MGMT-81334C. (Note: For contracts that require CSDRs, the CWBS shall be developed, approved, and maintained in accordance with DoD 5000.4-M-1, Cost and Software Data Reporting Manual, and the CWBS DID.) Certain aspects of the report are subject to negotiation between the Government and the contractor, such as:

b. The reporting level [see section 1.] for Format 1 will normally be limited to MIL-STD 881 (current version). Lower levels may be specified for high-cost or high-risk items. The Government and the contractor shall periodically review and adjust as necessary CWBS reporting levels on Format 1 to ensure they continue to provide appropriate visibility without requiring excessive information. This should be reviewed at each program event e.g., SDR PDR, CDR for effectiveness. If there is a significant problem at a lower level, detailed reporting for that CWBS element may be required until the problem is resolved.

3.2.1 Contract Data.

3.2.1.1 Quantity. Enter in Block 5.a the number of principal hardware delivery items to be procured on this contract. Non-hardware type programs (e.g.. Software, services) shall place a "0" in this block.

3.2.1.2 Negotiated Cost. Enter in Block 5.b the dollar value (excluding fee or profit) on which contractual agreement has been

reached as of the cutoff date of the report. For an incentive contract, enter the definitized contract target cost. For a cost plus fixed fee, award fee, or incentive fee contract, enter the estimated cost negotiated. Changes to the estimated cost shall consist only of estimated amounts for changes in the contract scope of work, not for cost growth ("overrun") above the original estimated cost. Amounts for changes shall not be included in this item until they have been priced and incorporated in the contract through contract change order or supplemental agreement.

3.2.1.3 Estimated Cost of Authorized, Unpriced Work. Enter in Block 5.c the amount (excluding fee or profit) estimated for that work for which written authorization has been received, but for which definitized contract prices have not been incorporated in the contract through contract change order or supplemental agreement. The term "written" includes any valid contractual direction authorized by the Government Contracting Office. "Estimated" only refers to the fact the numbers have not been incorporated into the contract. This normally includes Rough Orders of Magnitude (ROMS) authorized by the government, not the amount of the Not-To-Exceed funding received.

3.2.1.4 Target Profit/Fee. Enter in Block 5.d the fee or percentage of profit that shall apply if the negotiated cost of the contract is met. (See 3.2.1.2 above.)

3.2.1.5 Target Price. Enter in Block 5.e the target price (negotiated contract cost plus profit/fee) applicable to the definitized contract effort.

3.2.1.6 Estimated Price. Based on the most likely estimate of cost at completion for all authorized contract work and the appropriate profit/fee, incentive, and cost sharing provisions, enter in Block 5.f the estimated final contract price (total estimated cost to the Government). This number shall be based on the most likely management EAC in Block 6.c.1 and normally will change when the management estimate or the contract is revised. This number shall also appear at block 11.g of the CFSR as applicable.

3.2.1.7 Contract Ceiling. Enter in Block 5.g the contract ceiling price applicable to the definitized effort. This is only applicable to contracts with the ceiling clause.

3.2.1.8 Estimated Contract Ceiling. Enter in Block 5.h the estimated ceiling price applicable to all authorized contract effort including both definitized and undefinitized effort. This is only applicable to contracts with the ceiling clause.

3.2.1.9 Over Target Baseline/Over Target Schedule. Enter in Block 5.i the date the last over target baseline or over target schedule was implemented (if applicable).

3.2.2 Estimated Cost at Completion. These blocks shall present the contractor's range of estimated costs at completion. The range of estimates is intended to allow contractor management flexibility to express possible cost outcomes. Contractors shall provide the most

accurate Estimates at Completion (EACs) possible through program-level assessments of factors that may affect the cost, schedule, or technical outcome of the contract. Such program-level assessments shall include consideration of known or anticipated risk areas, and planned risk reductions or cost containment measures. EACs shall be reported without regard to contract ceiling.

3.2.2.1 Management Estimate at Completion - Best Case. Enter in Block 6.a.1 the contractor's best case EAC. The best case estimate is the one that results in the lowest cost to the Government. This estimate shall be based on the outcome of the most favorable set of circumstances. If this estimate is different from the most likely EAC (Block 6.c.1), the assumptions, conditions, and methodology underlying this estimate shall be explained briefly in Format 5. This estimate is for informational purposes only; it is not an official company estimate. There is no requirement for the contractor to prepare and maintain backup data beyond the explanation provided in Format 5.

3.2.2.2 Management Estimate at Completion - Worst Case. Enter in Block 6.b.1 the contractor's worst case EAC. The worst case estimate is the one that results in the highest cost to the Government. This estimate shall be based on the outcome of the least favorable set of circumstances. If this estimate is different from the most likely EAC (Block 6.c.1), the assumptions, conditions, and methodology underlying this estimate shall be explained briefly in Format 5. This estimate is for informational purposes only; it is not an official company estimate. There is no requirement for the contractor to prepare and maintain backup data beyond the explanation provided in Format 5.

3.2.2.3 Management Estimate at Completion - Most Likely. Enter in Block 6.c.1 the contractor's most likely EAC. This estimate is the contractor's official contract EAC and, as such, takes precedence over the estimates presented in Column (15) of Formats 1 and 2 and Blocks 6.a.1 and 6.b.1. This EAC is the value that the contractor's management believes is the most likely outcome based on a knowledgeable estimate of all authorized work, known risks, unknown risks, and probable future conditions. This value typically will not agree with the total of Column (15) (Block 8.e). Any difference shall be explained in Format 5 in such terms as risk and opportunities, or higher management knowledge of current or future contract conditions. The assumptions, conditions, and methodology underlying this estimate shall be explained briefly in Format 5. This EAC need not agree with EACs contained in the contractor's internal data, but must be reconcilable to them. The most likely EAC shall also be reconcilable to the contractor's latest statement of funds required as reported in the CFSR, or its equivalent, if this report is a contractual requirement.

3.2.2.4 Contract Budget Base. Enter in Block 6.c.2 the total of negotiated cost (Block 5.b) and estimated cost of authorized, unpriced work (Block 5.c).

3.2.2.5 Variance. Enter in Block 6.c.3 the Contract Budget Base

(Block6.c.2) minus the most likely estimate at complete (Block 6.c.1). This value shall be explained in Format 5 according to applicable contractual requirements.

3.2.3 Authorized Contractor Representative. Enter in Block 7.a the name of the authorized person (program manager or designee) signing the report. Enter that person's title in Block 7.b. The authorized person shall sign in Block 7.c. Enter the date signed in Block 7.d. Electronic signatures are encouraged.

3.2.4 Performance Data.

2.2.4.1 Column (1) - Work Breakdown Structure Element. Enter in Column (1) of Block 8.a the noun description of the CWBS items for which cost information is being reported. CWBS elements and levels reported shall be those specified in the contract. (See b above.)

3.2.4.2 Cost of Money (COM). Enter in Columns (2) through (16) of Block 8.b the Facilities Capital Cost of Money applicable to the contract. If COM costs have not been included in the CWBS costs reported in Block 8.a above, COM shall be shown as an add entry in Block 8.b. If COM costs have been included in the CWBS costs reported in Block 8.a, COM shall be shown as a non-add entry in Block 8.c with an appropriate notation to that effect.

3.2.4.3 General and Administrative. Enter in Columns (2) through (16) of Block 8.c the appropriate General and Administrative (G&A) costs. If G&A costs have not been included in the CWBS costs reported in Block 8.a above, G&A shall be shown as an add entry in Block 8.a. If G&A costs have been included in the CWBS costs reported in Block 8.a above, G&A shall be shown as a non-add entry in Block 8.c with an appropriate notation to that effect. For contracts that require CSDRs, contractors may also have to submit separate costs without G&A for the CWBS elements reported in Block 8.a on an exception basis if the Government specifies such a requirement in the CDRL. If a G&A classification is not used, no entry shall be made other than an appropriate notation to that effect.

3.2.4.4 Undistributed Budget. Enter the amount of budget applicable to contract effort that has not yet been identified to CWBS elements at or below the reporting level. For example, if contract changes were authorized late in the reporting period, they should have received a total budget; however, assignment of work and allocation of budgets to individual CWBS elements may not have been accomplished as of the contractor’s accounting period cutoff date. Budgets that can be identified to CWBS elements at or below the specified reporting level shall be included in the total budgets shown for the CWBS elements in Block 8.a and shall not be shown as Undistributed Budget(UB). Enter in Column (15) of Block 8.d the EAC for the scope of work represented by the UB in Column (14) of Block 8.d. Enter in Column (16) of Block 8.d the variance, if any, and fully explain it in Format 5. The reason(s) for UB shall be fully explained in Format 5.

3.2.4.4.1 Use of Undistributed Budget. UB is used to accommodate

temporary situations where time constraints prevent adequate budget planning or where contract effort can only be defined in very general terms. UB shall not be used as a substitute for adequate contract planning. Formal budgets shall be allocated to contract effort and responsible organizations at the earliest possible time, preferably within the next reporting period. It is not appropriate to have negative UB budget. If a de-scope change occurs late in the month, the amount shall be discussed in Format 5.

3.2.4.5 Subtotal (Performance Measurement Baseline). In Columns (2) through (16) of Blocks 8.a through 8.e, enter the sum of the costs and budgets for direct, indirect, cost of money, and G&A. This subtotal represents the dollars in the allocated budget (less MR), which is the Performance Measurement Baseline (PMB) against which performance is measured.

3.2.4.6 Management Reserve. MR is an amount of the overall contract budget withheld for management control purposes and is held for program unknowns (realized risks on authorized work scope). Reserve is held for future needs and shall not be used to offset cumulative cost variances. It shall not be eliminated from contract prices by the Government during subsequent negotiations nor used to absorb the cost of contract changes. In Column (14) of Block 8.f enter the total amount of budget identified as MR as of the end of the current reporting period. The amounts shown as MR in Formats 1, 2, and 3 shall agree. Amounts of MR applied to CWBS elements during the reporting period shall be listed in Block 6.b of Format 3 and explained in Format 5.

3.2.4.6.1 Negative Management Reserve. Negative entries shall not be made in Management Reserve (Column (14) of Block 8.f). There is no such thing as "negative MR". If the contract is budgeted in excess of the Contract Budget Base (the negotiated contract cost plus the estimated cost for authorized, unpriced work), the provisions applicable to formal reprogramming and the instructions in paragraphs 3.2.5.1, 3.2.6.6, 3.2.6.7, and 3.4.1.7 apply.

3.2.4.7 Total. Enter the sum of all direct, indirect, cost of money, and G&A costs, and UB and MR (if applicable) in Columns (2) through (14) of Block 8.g. The Total lines of Format 1 (Block 8.g) and Format 2 (Block 5.g) shall agree. The total of Column (14), Block 8.g, shall equal the Total Allocated Budget shown in Block 5.f on Format 3.

3.2.5 Reconciliation to Contract Budget Base.

3.2.5.1 Formal Reprogramming. In exceptional cases, the contractor may establish performance measurement budgets that exceed the Contract Budget Base. Acceptance of the new baseline in excess of the Contract Budget Base will be predicated on Government approval. This process is called formal reprogramming. The contractor and the Government shall agree on how the results of a formal reprogramming will be reported in the IPMR before the formal reprogramming is initiated. This agreement and any other pertinent details on the reporting of the formal reprogramming shall be included in Format 5. Blocks 9.a and

9.b are used to reconcile the higher performance measurement budgets, also called an "over target baseline,"(OTB) to the Contract Budget Base. ((See 3.2.6.6, 3.2.6.7, 3.4.1.7, and 3.6.5 below for more information on reporting OTB.)

3.2.5.2 Variance Adjustment. In a formal reprogramming (over target baseline), the contractor may: (1) apply the additional budget to completed work, thereby eliminating some or all of the existing cost or schedule variances, (2) apply the additional budget to remaining work, (3) apply some of the additional budget to completed work and some to remaining work, and, additionally or in lieu of, (4) apply some of the additional budget to MR. If the contractor uses a portion of the additional budget to eliminate variances applicable to completed work, the total adjustments made to the cost and schedule variances shall be shown in Columns (10) and (11) of Block 9.a. The total cost variance adjustment entered in Column (11) of Block 9.a shall be the sum of the individual cost variance adjustments shown in Column (12) of Block 8.g.

3.2.5.3 Total Contract Variance. In Columns (10) and (11) of Block 9.b, enter the sum of the cost and schedule variances shown on the Total line (Block 8.g) and on the Variance Adjustment line (Block 9.a). In Column (14) enter the Contract Budget Base from Block 6.c.2. In Column (15) enter the most likely management EAC from Block 6.c.1. In Column (16) of Block 9.b enter the difference between Columns (14) and (15) of Block 9.b.

3.2.6 Columns (2) Through (16). When compliance with the ANSI/EIA-748(current version in effect at time of contract award) is contractually required, the data in Columns (2) through (16) shall reflect the output of the contractor's ANSI/EIA-748 compliant integrated management system.

3.2.6.1 Column (2) and Column (7) - Budgeted Cost - Work Scheduled. For the time period indicated, enter the Budgeted Cost for Work Scheduled (BCWS) in these columns.

3.2.6.2 Column (3) and Column (8) - Budgeted Cost - Work Performed. For the time period indicated, enter the Budgeted Cost for Work Performed (BCWP) in these columns.

3.2.6.3 Column (4) and Column (9) - Actual Cost - Work Performed. For the time period indicated, enter the Actual Cost of Work Performed (ACWP) without regard to ceiling. In all cases, costs and budgets shall be reported on a comparable basis.

3.2.6.4 Column (5) and Column (10) - Variance – Schedule (i.e., accomplishment). For the time period indicated, these columns reflect the differences between BCWS and BCWP. For the current period column, Column (5)(schedule variance) is derived by subtracting Column (2) (BCWS) from Column

(3) (BCWP). For the cumulative to date column, Column (10) (schedule variance) is derived by subtracting Column (7) (BCWS) from Column (8) (BCWP). A positive number in Column (5) and Column (10) indicates a

favorable variance. A negative number (indicated by parentheses) indicates an unfavorable variance. Significant variances as specified in the contract shall be fully explained in Format 5. If the contract does not specify variance analysis thresholds, the contractor shall provide appropriate variance analyses. (See 3.6.3 below.)

3.2.6.5 Column (6) and Column (11) - Variance - Cost. For the time period indicated, these columns reflect the difference between BCWP and ACWP. For the current period column, Column (6) (cost variance) is derived by subtracting Column (4) (ACWP) from Column (3) (BCWP). For the cumulative to date column, Column (11) (cost variance) is derived by subtracting Column (9)(ACWP) from Column (8) (BCWP). A positive value indicates a favorable variance. A negative value (indicated by parentheses) indicates an unfavorable variance. Significant variances as specified in the contract shall be fully explained in Format 5. If the contract does not specify variance analysis thresholds, the contractor shall provide appropriate variance analyses. (See 3.6.3 below.)

3.2.6.6 Column (12a) and Column (12b) Reprogramming Adjustments - Cost Variance and Schedule Variance. Formal reprogramming (over target baseline) results in budget allocations in excess of the Contract Budget Base and, in some instances, adjustments to previously reported variances. If previously reported variances are being adjusted, the adjustment applicable to each reporting line item affected shall be entered in Column (12a) if for a cost variance and Column (12b) if for a schedule variance. The total of Column (12a) and Column (12b) shall equal the amount shown on the Variance Adjustment line (Block 9.a) in Column (10) and Column (11).

3.2.6.7 Column (13) Reprogramming Adjustments - Budget. Enter the total amounts added to the budget for each reporting line item as the result of formal reprogramming (over target baseline). The amounts shown shall consist of the sum of the budgets used to adjust cost variances (Column (12)) plus the additional budget added to the CWBS element for remaining work. Enter the amount of budget added to MR in the space provided on the Management Reserve line (Block 8.f of Column (13)). The total of Column (13) shall equal the budget amount by which the Total Allocated Budget exceeds the Contract Budget Base as shown in Block 5.g of Format 3. An explanation of the reprogramming shall be provided in Format 5.

3.2.6.7.1 Formal Reprogramming Reporting. Columns (12) and (13) are intended for use only in situations involving formal reprogramming (over target baseline). Internal replanning actions within the Contract Budget Base do not require entries in these columns.

3.2.6.7.2. Formal Reprogramming Timeliness. Formal reprogramming (over target baseline) can be a significant undertaking that may require more than a month to implement. To preclude a disruption of management visibility caused by a reporting hiatus, formal reprogramming shall be implemented expeditiously. If a reporting hiatus is needed, the contractor and the Government shall agree on the

date and duration of the hiatus before the formal reprogramming is initiated.

3.2.6.8 Column (14) - At Completion - Budgeted. Enter the budgeted cost at completion for the items listed in Column (1). This entry shall consist of the sum of the original budgets plus or minus budget changes resulting from contract changes, internal replanning, and application of MR. The total (Block 8.g) shall equal the Total Allocated Budget shown in Block 5.f on Format 3.

3.2.6.9 Column (15) - At Completion - Estimated. Enter the latest revised estimate of cost at completion including estimated overrun/underrun for all authorized work. If the subtotal (Block 8.e) does not agree with the most likely management EAC (Block 6.c.1), the difference shall be explained in Format 5. (See 3.2.2.3 above.)

3.2.6.10 Column (16) - At Completion - Variance. Enter the difference between the Budgeted - At Completion (Column (14)) and the Estimated - At Completion (Column (15)) by subtracting Column (15) from Column (14). A negative value (indicated by parentheses) reflects an unfavorable variance. Significant variances as specified in the contract shall be fully explained in Format 5. If the contract does not specify variance analysis thresholds, the contractor shall provide appropriate variance analyses. (See 3.6.3 below.)

3.3 Format 2 - Organizational Categories.

h. If required, the Format 2 categories shall reflect the contractor's internal organization being used to execute the contract. The Government and the contractor shall negotiate the Format 4 categories.

3.3.1 Performance Data.

3.3.1.1 Column (1) - Organizational Category. In Block 5.a list the organizational categories that reflect the contractor's internal management structure. This format shall be used to collect organizational cost information at the total contract level for organizational elements rather than for individual CWBS elements. This column shall also identify each major subcontractor as defined in the contract. The individual subcontractor line shall reconcile with the cost to the prime (includes subcontractor fee, MR, UB, G&A, cost of money, etc.) or shall track directly with the subcontractor submittal consistent with the company/program documented process for subcontract integration. The process for subcontract integration shall be explained in Format 5. This column shall also identify each major subcontractor and each major vendor separately as an add or non-add item. (Note: The separation of subcontractor efforts is for reporting purposes and not intended to impact how contracts are managed.) Except for material included in the add item for each major subcontractor or major vendor, the column shall also identify material separately as an add or non-add item. The level of detail to be reported will normally be limited to the organizational level immediately under the operating head of the facility. The contractor may report this information according to its own internal management

structure. If the contractor is organized by product teams, this format may not be needed because it may resemble Format 1.

3.3.1.2 Cost of Money. Enter in Columns (2) through (16) of Block 5.b the Facilities Capital Cost of Money applicable to the contract. If COM costs have not been included in the CWBS costs reported in Block 5.a above, COM shall be shown as an add entry in Block 5.a. If COM costs have been included in the CWBS costs reported in Block 5.a above, COM shall be shown as a non-add entry in Block 5.c with an appropriate notation to that effect. (See 3.2.4.2 above.)

3.3.1.3 General and Administrative. Enter in Columns (2) through (16) of Block 5.c the appropriate G&A costs. If G&A costs have not been included in the CWBS costs reported in Block 5.a above, G&A shall be shown as an add entry in Block 5.a. If G&A costs have been included in the CWBS costs reported in Block 5.a above, G&A shall be shown as a non-add entry in Block 5.c with an appropriate notation to that effect. If a G&A classification is not used, no entry shall be made other than an appropriate notation to that effect. (See 3.2.4.3 above.)

3.3.1.4 Undistributed Budget. Enter in Column (14) of Block 5.d the budget applicable to contract effort that cannot be planned in sufficient detail to be assigned to a responsible organizational area at the reporting level. The amount of UB in Format 2 shall be equal to the amount in Format 1. Enter in Column (15) of Block 5.d the EAC for the scope of work represented by the UB in Column (14) of Block 5.d. Enter in Column (16) of Block 5.d the variance, if any, and fully explain it in Format 5. (See 3.2.4.4 above.)

3.3.1.5 Subtotal (Performance Measurement Baseline). Enter the sum of the direct, indirect, cost of money, and G&A costs and budgets in Columns (2) through (16) of Blocks 5.a through 5.e. (See 3.2.4.5 above.)

3.3.1.6 Management Reserve. In Column (14) of Block 5.f enter the amount of budget identified as MR. The Management Reserve entry shall agree with the amounts shown in Formats 1 and 3. (See 3.2.4.6 above.)

3.3.1.7 Total. Enter the sum of all direct, indirect, cost of money, and G&A costs and budgets, UB, and MR (if applicable) in Columns (2) through (14) of Block 5.g. The totals on this page shall equal the Total line on Format 1. The total of Column (14) shall equal the Total Allocated Budget shown in Block 5.f on Format 3.

3.3.2 Columns (2) Through (16). The instructions applicable to these Columns are the same as the instructions for corresponding Columns on Format 1. (See 3.2.6 and 3.2.6.1 through 3.2.6.10 above.)

3.4 Format 3 - Baseline.

3.4.1 Contract Data.

3.4.1.1 Original Negotiated Cost. Enter in Block 5.a the dollar value (excluding fee or profit) negotiated in the original contract. For a

cost plus fixed fee, incentive, or award fee contract, enter the estimated cost negotiated. For an incentive contract enter the definitized contract target cost.

3.4.1.2 Negotiated Contract Changes. Enter in Block 5.b the cumulative cost (excluding fee or profit) applicable to definitized contract changes that have occurred since the beginning of the contract.

3.4.1.3 Current Negotiated Cost. Enter in Block 5.c the sum of Blocks 5.a and 5.b. The amount shown shall equal the current dollar value (excluding fee or profit) on which contractual agreement has been reached and shall be the same as the amount in Negotiated Cost (Block 5.b) on Format 1.

3.4.1.4 Estimated Cost of Authorized, Unpriced Work. Enter in Block 5.d the estimated cost (excluding fee or profit) for contract changes for which authorization has been received from the contracting officer, but for which contract prices have not been incorporated in the contract, as shown in Block 5.c of Format 1.

3.4.1.5 Contract Budget Base. Enter in Block 5.e the sum of Blocks 5.c and 5.d.

3.4.1.6 Total Allocated Budget. Enter in Block 5.f the sum of all budgets allocated to the performance of the contractual effort. The amount shown shall include all MR and UB. This amount shall be the same as that shown on the Total line in Column (14) on Format 1 (Block 8.g) and Format 2 (Block5.g).

3.4.1.7 Difference. Enter in Block 5.g the difference between Blocks 5.e and 5.f. In most cases, the amounts shown in Blocks 5.e and 5.f will be identical. If the amount shown in Block 5.f exceeds that shown in Block 5.e, it usually is an indication of a formal reprogramming (over target baseline). The difference shall be explained in Format 5 at the time the negative value appears and subsequently for any changes in the difference between Contract Budget Base and the Total Allocated Budget.

3.4.1.8 Contract Start Date. Enter in Block 5.h the date the contractor was authorized to start work on the contract, regardless of the date of contract definitization. (Note: Long-lead procurement efforts authorized under prior contracts are not to be considered.)

3.4.1.9 Contract Definitization Date. Enter in Block 5.i the date the contract was definitized.

3.4.1.10 Planned Completion Date. Enter in Block 5.j the completion date to which the budgets allocated in the PMB have been planned. This date represents the planned completion of all significant effort on the contract. The cost associated with the schedule from which this date is taken is the Total Allocated Budget (Block 5.f of Format 3).

3.4.1.10.1 Performance Measurement Schedule Inconsistent With Contractual Schedule. In exceptional cases, the contractor may

determine that the existing contract schedule cannot be achieved and no longer represents a reasonable basis for management control. With Government approval, the contractor may rephase its performance measurement schedule to new dates that exceed the contractual milestones, a condition known as "over target schedule". These new dates are for performance measurement purposes only and do not represent an agreement to modify the contract terms and conditions.

3.4.1.10.2 Over Target Schedule Agreement. The Government and the contractor shall agree on the new performance measurement schedule prior to reporting it in the IPMR. The contractor shall provide pertinent information in Format 5 on any schedule milestones that are inconsistent with contractual milestones, beginning the month the schedule is implemented and each month thereafter.

3.4.1.10.3 Indicators of a Performance Measurement Schedule Inconsistent with the Contractual Schedule. Formal reprogramming or internal replanning may result in performance measurement milestones that are inconsistent with the contractual milestones (Over Target Schedule). A difference between the planned completion date (Block 5.j) and the contract completion date (Block5.k) usually indicates that some or all of the performance measurement milestones are inconsistent with the contractual milestones. Any difference should be consistent with the Format 6 forecast.

3.4.1.11 Contract Completion Date. Enter in Block 5.k the contract scheduled completion date in accordance with the latest contract modification. The cost associated with the schedule from which this date is taken is the Contract Budget Base (Block 5.e of Format 3).

3.4.1.12 Estimated Completion Date. Enter in Block 5.l the contractor's latest revised estimated completion date. This date represents the estimated completion of all significant effort on the contract, consistent with Format 6 forecast. The cost associated with the schedule from which this date is taken is the “most likely” management EAC (Block 6.c.1 of Format 1).

3.4.2 Performance Data.

3.4.2.1 Column (1) - Performance Measurement Baseline (Beginning of Period). Enter in Block 6.a the time-phased PMB (including G&A) that existed at the beginning of the current reporting period. Most of the entries on this line (e.g., for Columns (4) through (9)) are taken directly from the PMB (End of Period) line on the previous report. For example, the number in Column (4) on the PMB (End of Period) line from the last report becomes the number in Column (3) on the PMB (Beginning of Period) line on this report. The number in Column (5) (End of Period) last report becomes Column (4) (Beginning of Period) on this report, etc. (if each of the two columns covers the same length of time).

3.4.2.2 Baseline Changes. In Block 6.b, list all significant baseline changes that have occurred during the reporting period. This listing shall include the contract changes and supplemental agreements

authorized during the reporting period, allocations from MR and UB, and any significant rephasing of budgets. All significant authorized baseline changes shall be listed whether priced or unpriced.

3.4.2.3 Total Baseline Changes. In Block 6.c, calculate the difference between Block 6.A and 6.B for the columns 5-15. This shall be equal to the total changes as reported in the current month between the beginning period and the end of the period.

3.4.2.4 Performance Measurement Baseline (End of Period). Enter in Block 6.d the time-phased PMB as it exists at the end of the reporting period. The difference between this line and the PMB (Beginning of Period) represents the effects of all significant changes, including the authorized changes, allocations of MR made during the period, and changes to time phasing due to internal replanning or formal reprogramming. The reasons for these changes shall be explained in Format 5.

3.4.2.5 Management Reserve. Enter in Block 7 the total amount of MR remaining as of the end of the reporting period. This value shall agree with the amounts shown as MR in Formats 1 and 2.

3.4.2.6 Total. Enter in Column (16) of Block 8 the sum of Column (16) of Block 6.d (PMB (End of Period)) and Column (16) of Block 7 (Management Reserve). This amount shall be the same as that shown on the Total line (Block 8.g) in Column (14) on Format 1.

3.4.3 Column (2) - BCWS - Cumulative To Date. On the PMB (Beginning of Period) line (Block 6.a), enter the cumulative BCWS as of the first day of the reporting period. This shall be the same number reported as BCWS -Cumulative To Date on the Total line (Column (7) of Block 8.g) of Format 1 of the previous IPMR. On the PMB (End of Period) line (Block 6.d), enter the cumulative BCWS as of the last day of the reporting period. This shall be the same number reported as BCWS - Cumulative to Date on the Total line (Column (7) of Block 8.g) of Format 1 for this IPMR.

3.4.4 Column (3) - BCWS For Report Period. On the PMB (Beginning of Period) line (Block 6.a), enter the BCWS planned for the reporting period. This shall be the number in Column (4) on the PMB (End of Period) line (Block 6.d) on the previous IPMR.

3.4.5 Columns (4) Through (14). Enter the names of each month for the contract period of performance in the headings of each of the Columns (4) through (9), and the names of the appropriate periods in the headings of each of the Columns (10) through (14) of Block 6. Columns beyond (14) may be added when necessary or desirable. In the PMB (Beginning of Period) line (Block6.a), enter the BCWS projection reported in Format 3 of the previous IPMR as PMB (End of Period) (Block 6.d). In the PMB (End of Period) line (Block 6.d)of this report, enter the projected BCWS by month for the next six months and for periodic increments (monthly, quarterly, or annually) thereafter for the remainder of the contract. The time phasing of each item listed in Column (1)of Block 6.b need not be shown in Columns (4)

through (14). It is useful to show the time phasing of any baseline changes. (Note: For the purposes of illustration, Sample Format 3 has Columns (4) through (14) for reporting BCWS. The actual number of columns will vary from contract to contract.)

3.4.6 Column (15) - Undistributed Budget. On the PMB (Beginning of Period) line (Block 6.a), enter the number from Column (15) on the PMB (End of Period) line (Block 6.d) from the previous IPMR. On the PMB (End of Period) line, enter the UB shown in Column (14) of Block 8.d on Format 1 of this report.

3.4.7 Column (16) - Total Budget. On the PMB (Beginning of Period) line (Block 6.a) enter the number from Column (16) on the PMB (End of Period) line (Block 6.d) from the previous IPMR. In the section where baseline changes that occurred during the period are listed (Column (1) of Block 6.b), enter the amount of each of the changes listed. On the Total Baseline Changes Authorized during Report line (Block 6.c), enter the sum of the amounts in the preceding columns. On the PMB (End of Period) line (Block 6.d), enter the sum of the amounts in the preceding columns on this line. On the Management Reserve line (Block 7), enter the amount of MR available at the end of the period. On the Total line (Block 8) enter the sum of the amounts in this column on the PMB (End of Period) line and the Management Reserve line. (Note: This shall equal the amount in Block 5.f on this format and also the amount of the Total line in Column (14), Block 8.g, of Format 1.)

3.5 Format 4 - Staffing.

3.5.1 Performance Data. For those organizational categories shown in Column (1) of Block 5, equivalent months shall be indicated for the current reporting period (Column (2)), cumulative through the current period (Column (3)), forecast to completion (Columns (4) through (14)), and at completion (Column(15)). Direct equivalent months shall be shown for each organizational category for the contract. An equivalent month is defined as the effort equal to that of one person for one month. Values shall be reported in whole numbers. (Note: Partial months, .5 and above, shall be rounded to 1; below.5 to 0.) When the Government and the contractor agree, staffing may be reported in equivalent days or hours.

3.5.1.1 Column (1) - Organizational Category. In Block 5, list the organizational categories that reflect the contractor's internal management structure. Format 4 categories may differ from those reported in Format 2. If the Government needs different categories in Formats 2 and 4, the Format 4 categories shall be addressed during negotiations. (See h above.)

3.5.1.2 Total Direct. In Block 6, Columns (2) through (15), enter the sum of all direct equivalent months for the organizational categories shown in Column (1).

3.5.2 Column (2) - Actual - Current Period. Enter the actual equivalent months incurred during the current reporting period.

3.5.3 Column (3) - Actual End of Current Period (Cumulative). Enter

the actual equivalent months incurred to date (cumulative) as of the end of the reporting period.

3.5.4 Columns (4) Through (14) - Forecast (Non-Cumulative). Enter the names of each month for the contract period of performance in the headings of each of the Columns (4) through (9), and the names of the appropriate periods in the headings of each of the Columns (10) through (14) of Block 5. Enter a staffing forecast by month for the next six months and for periodic increments (monthly, quarterly, or annually) thereafter for the remainder of the contract. The staffing forecast shall be updated as part of the formal EAC process followed by the contractor. The staffing forecast shall reflect the same staffing estimate used as the basis for the EAC in Column (15) on both Format 1 and Format 2. (Note: For the purposes of illustration, Sample Format 4 has Columns (4) through (14) for reporting staffing forecast. The actual number of columns will vary from contract to contract.)

3.5.5 Column (15) - Forecast at Completion. Enter the estimate of equivalent months necessary for the total contract in Column (15) by organizational category. This estimate shall be consistent with the "most likely" management EAC shown in Column (15) of Block 8.e of Format 1. Any significant change in the total number of equivalent months at completion of the contract (i.e., Column (15) Total) shall be explained in Format 5.

3.6 Format 5 - Explanations and Problem Analyses.

3.6.1 General. Format 5, Explanations and Problem Analyses, is a narrative report prepared to amplify and explain data in the other IPMR formats. Format 5 shall normally address the following: 1) Contract Summary; 2) Contractual Status; 3) Formal Reprogramming Analysis; 4) Estimate at Complete Analysis; 5) Undistributed Budget Analysis; 6) Management Reserve Analysis; 7) Cost and Schedule Variance Analysis 8) Format 3 Discussion; 9) Format 4 Discussion; 10) IMS Discussion 11) Supplemental Discussions. Any other topic relevant to contract cost, schedule, or technical performance may be addressed in this format. The date(s) of the Integrated Baseline Review(s) shall also be addressed in this format. Contractors may elect to attach subcontractor Format 5 reporting and cross reference this analysis in the Format 5 reporting submitted to the Government to gain time efficiencies and meet submission dates.

3.6.2 Contract Summary (Total Contract). Provide a summary analysis that identifies significant problems affecting performance. Indicate corrective actions required, including Government action where applicable. Significant changes since the previous report shall be highlighted. Discuss any other issues affecting successful attainment of contract cost, schedule, or technical objectives that the contractor deems significant or noteworthy. This section is brief, normally one page.

3.6.3 Contractual Status: Briefly discuss the current contractual actions and the corresponding changes in the PMB. Discuss recent

changes that have not yet been incorporated into the baseline and concerns that may impact the effectiveness of the currently reported baseline.

3.6.4 Formal Reprogramming (Over Target Baseline). If the difference shown in Block 5.g on Format 3 becomes a negative value or changes in value, provide information on the following:

3.6.4.1 Authorization. Procuring activity authorization for the baseline change that resulted in negative value or change.

3.6.4.2 Reason. A discussion of the reason(s) for the change.

3.6.4.3 IPMR Reporting. A discussion of how the change affected the IPMR reporting (i.e., amount allocated to MR, adjustments to cost and schedule variances, etc.). (See 3.4.1.7, 3.2.5.1, and 3.2.6.7 above.)

3.6.4.4 Schedule. Indicate whether the contract schedule was retained for performance measurement or was replaced with a schedule that exceeds the contractual schedule (Over Target Schedule).

3.6.5 Over Target Schedule. If a performance measurement schedule exceeding the contractual schedule (Over Target Schedule) has been implemented, provide a discussion of the pertinent information; such as authorization, reasons, and significant dates. (See 3.4.1.10.1 above.)

3.6.6 Estimate at Complete Analysis. If the best or worst case management EACs differ from the most likely estimate (Column (1) of Block 6 of Format 1), a brief explanation of the difference shall be provided. Also, when the most likely management EAC differs from the total entered in Column (15) of Format 1 or 2, the difference shall be explained. The explanations shall focus on such areas as a knowledgeable, realistic risk assessment; projected use of MR; estimate for UB; and higher management's knowledge of current or future contract conditions. The assumptions, conditions, methodology, and risk integration for most likely, best, and worst case EAC shall be explained. (See 3.2.2 to 3.2.2.3, 3.2.2.5, 3.2.6.9, and 3.2.6.10 above.) Discussions should include an assessment of the IMS status.

3.6.7 Undistributed Budget Analysis. Identify the effort to which the UB applies. Also, explain any variance between the UB and the estimate for UB in Formats 1 and 2. (See 3.2.4.4 and 3.3.1.4 above.)

3.6.8 Management Reserve Analysis. Identify the sources and uses of management reserve changes during the reporting period. Identify the CWBS and organizational elements to which MR is applied, and the reasons for its application. (See 3.2.4.6 above.)

3.6.9 Cost and Schedule Analysis.

3.6.9.1 General. Explain variances that exceed specified variance thresholds and are reportable at the WBS reporting level(see 3.6.9.3). Explanations of variances shall clearly identify the nature of the problem, significant reasons for cost or schedule variance, effect on the immediate task, impact on the total contract, and the corrective action taken or planned. Explanations of cost variances shall

identify amounts attributable to rate changes separately from amounts applicable to hours worked; amounts attributable to material price changes separately from amounts applicable to material usage; and amounts attributable to overhead rate changes separately from amounts applicable to overhead base changes or changes in the overhead allocation basis. The discussion of schedule variance must include the variance impact(s) to the critical path and float.

3.6.9.2 Setting Variance Analysis Thresholds. In Format 5, the Government will require only that amount of variance analysis that satisfies its management information needs. Excessive variance analysis is burdensome, costly, and detracts from the IPMR's usefulness, while too little information is equally undesirable. The Government will specify the thresholds. Thresholds should be based on both cost and schedule. Thresholds for dollars and percentages based on "OR" are not appropriate; use "AND". For example, a current month cost variance threshold of $100,000 AND 10%. Not $100,000 OR 10%.

3.6.9.3 Reportable Variances. Based on the cost and schedule variances, the contractor determines all items within Format 1 WBS that exceeded a threshold or Format 2 structure. The reportable variances are limited to the top 15 Format 1 and top 5 Format 2 variances. The categories are current, cumulative, and at-complete variances. The government may select an alternate method of the selection of 15 variance categories or WBS elements to report. (See section 3.6.9.3.3).

3.6.9.3.1 Variances to Report Without Government Response. The Government may direct the contractor as to which variances are reportable from the previous month analysis no later than the delivery date of Formats 1-4. Should the Government not respond, the contractor will prepare analysis of the top three variance in each category based on dollar magnitude based on the WBS and the top five Format 2 variances based on cumulative schedule or cost in percentage. Note: The top three by category and top 15 by WBS may result in less reportable WBSs. A reportable WBS may exceed two or more categories simultaneously; e.g., a current and cumulative variance and shall count for both categories in the same month as applicable.

3.6.9.3.2 Analysis Amounts. There is nothing in this section that prohibits the contractor, with the concurrence of the Government, from providing more analysis than required to cover an emerging or significant trend. Likewise there is nothing in this section that prohibits the government from requesting more analysis than required to cover an emerging or significant trend. The Government may reduce the amount if no longer meaningful.

3.6.10 Format 3 Discussion, Baseline Changes. Explain reasons for significant shifts in time phasing of the PMB shown on Format 3. (See 3.4.2.3 above.)

3.6.11 Format 4 Discussion, Staffing Level Changes. Explain significant changes in the total staffing EAC shown on Format 4. Also, explain reasons for significant shifts in time phasing of

planned staffing. (See 3.5.5 above.)

3.6.12 Supplemental Discussions. Discuss additional information as applicable. As a minimum the contractor shall disclose:

3.6.12.1 Dates. Include the dates of all completed IBRs and proposed dates for IBRs to be conducted in the next six months.

3.6.12.2 Schedule. Indicate whether the contract schedule was retained for performance measurement or was replaced with a schedule that exceeds the contractual schedule (Over Target Schedule).

3.6.13 IMS Discussion. Discuss the IMS Monthly Analysis. Monthly analysis is a monthly assessment of schedule progress to date and includes changes to schedule assumptions, variances to the baseline schedule, causes for the variances, potential impacts, and recommended corrective actions to minimize schedule delays. The analysis shall also identify potential problems and an assessment of the critical, driving, and near-critical paths.

3.7 Format 6 – Integrated Master Schedule (IMS)

3.7.1 Format. The IMS shall be created using a network capable Commercially Off the Shelf (COTS) scheduling software application. The IMS shall be delivered electronically in the native digital format (i.e., an electronic file produced by the contractor’s scheduling tool) and in the UN/CEFACT (United Nations Centre for Trade Facilitation and Electronic Business) XML schema, further defined for DoD use by standard guidelines.

3.7.2 Content.

3.7.2.1 Content Required. The prime contractor is required to include discrete tasks/activities, consistent with all authorized work including those allocated to subcontractors, and relationships necessary for successful program completion in Format 6 (IMS). The IMS is a single integrated network that also contains significant external interfaces, Government furnished equipment/information/property and information dependencies for the entire contractual effort. The Government may elect to require the contractor to submit subcontractor IMS reports that have a DFARS 252.234-7002 requirement with the contractor submission.

3.7.2.2 Content Status. The Format 6 (IMS) shall be statused according to the contractor’s management control system. The IMS shall be statused consistent with the contractor’s accounting month (Format 1 cutoff). It shall be submitted to the procuring activity prior to or concurrently with the other IPMR Format status date. When subcontractor schedule data reflects a different status date than the prime contractor schedule status date, these status dates shall be described in the analysis section of Format 5. All subcontractor schedules data shall reflect the prime contractor’s schedule status date. If the subcontractor Format 1 report has a significantly different date, the subcontractor may submit two IMS reports; one statused on the prime date and the other consistent with the subcontractor Format 1 report date.

3.7.2.3 Content Elements. The IMS shall contain the contract milestones, accomplishments, criteria, apportioned tasks/activities, discrete tasks/activities and planning packages, whereas applicable, from contract award to contract completion. The schedule shall be an integrated, logical network-based schedule that correlates to the CWBS and OBS, and is vertically and horizontally traceable. It shall be integrated with Format 5 analysis. The schedule shall have a numbering system that provides traceability to the IMP (if applicable), the Control Accounts, and the SOW. It shall contain contractual milestones and descriptions and display summary, intermediate, and detailed schedules, and periodic analysis of progress to date. It shall include fields and data that enable the user to access the information by product, process, or organizational lines. It shall contain all calendars that define working and nonworking time periods or other information that may impact the schedule.

3.7.2.3.1 Contract Milestones and Definitions. Key programmatic events, which define progress and completion for each CWBS element, along with the definition for successful completion of the milestone.

3.7.2.3.2 Summary Master Schedule. A top-level schedule of key tasks/activities and milestones at the summary level which can be sorted by either the CWBS or IMP structure (if applicable). It shall be an integrated roll up of the intermediate and detailed schedules (see 3.7.2.3 and 3.7.2.4 below).

3.7.2.3.3 Intermediate Schedules. Mid-level contract schedules that include key tasks/activities and milestones and all associated accomplishments in the summary master schedule, traceable to the CWBS element and the IMP event (as applicable) to display work effort at the intermediate level of summarization. There may be several intermediate schedules that depict varying levels of detail. They shall be integrated roll ups of the detailed schedules (see 3.7.2.3.4 below).

3.7.2.3.4 Detailed Schedules. The lowest level of contract tasks/activities that form the network. The detailed schedules shall contain horizontal and vertical integration, as a minimum, at the work package and planning package level. The detailed schedules shall include all tasks/activities, work packages and planning packages identified in the contract Performance Measurement Baseline (PMB). Every apportioned task/activity, discrete task/activity, work package and planning package shall be clearly identified and directly related to a control account. Work packages and planning packages shall be individually represented and summarized to or reconcile with the total budget for that control account. If Level of Effort (LOE) control accounts, work packages, or planning packages are included as tasks in the IMS, they shall be clearly identified as such and shall not impact or be impacted by discrete tasks/activities. The detailed tasks/activities, work packages, and planning packages shall be traceable to only one CWBS, IMP, Control Account, and performing organizational element, as applicable. The level of detail in the IMS

(including number and duration of tasks/activities) shall follow the contractor's EVM process as documented in the EVMS system description, program directives, etc. Shorter-term work packages (ideally equal in length to the statusing interval) are preferred because they provide more accurate and reliable measures of work accomplished. Planning packages and work packages shall be planned to their logical technical scope conclusion.

3.7.2.4.3.1 Key Elements of Detailed Schedules. The key elements of detailed schedules include the following:

3.7.2.4.1.3.1 Task/Activity. An element of work with duration.

3.7.2.4.1.3.2 Milestone. A specific definable accomplishment in the contract network, recognizable at a particular point in time. Milestones have zero duration and do not consume resources.

3.7.2.4.1.3.3 Duration. The length of time estimated (or realized) to accomplish a task/activity.

3.7.2.4.1.3.4 Schedule Visibility Task (SVT). Tasks/Activities or milestones in the IMS that increase management visibility and functionality of the schedule for non-PMB related items. SVTs shall not be used to represent any scope within the PMB. Resources cannot be assigned to SVTs, nor shall they be used to assess earned value performance. The SVTs shall not be used to establish work package or planning package period of performance. SVTs may be represented as task/activities or milestones.

3.7.2.4.1.3.5 Percent Complete (Schedule). The proportion of an activity or task that has been completed to time now. This usually involves updating or statusing the activity or task utilizing one of two methods: (1) update the remaining time to complete (remaining duration) and the scheduling software will then automatically update the schedule percent complete or (2) update the schedule percent complete and allow the scheduling software to calculate the time remaining (remaining duration) to complete. Either method will use the following formula: Percent of Duration Completed = (Actual Duration/Total Duration) X 100. This percent field does not represent physical work accomplished and shall not be used as the basis for performance measurement statusing.

3.7.2.4.1.3.6 Task/Activity and Milestone Descriptions. These are descriptive titles that are concise, complete, and clearly identify the work effort being accomplished. The title shall be sufficiently descriptive so that the activity name by itself can be understood where it sits in the plan. Abbreviations may be used to shorten the descriptive titles. The title for a task shall be unique in respect to other titles in the same IMS.

3.7.2.4.1.3.7 Task/Activity Codes and Data Dictionary. A list of field definitions and code structures. The list shall include fields used to represent IMP, WBS, OBS, control account, work package, EVM (including planning package and LOE if any), and SOW. If a coding structure is used for lag and constraint justification, (See sections

3.7.2.4.1.3.11 and 3.7.2.4.1.3.14), the coding structure shall be defined in the Data Dictionary. This list shall be provided to the procuring activity upon initial submission of the IMS and any subsequent change to the dictionary.

3.7.2.4.1.3.8 Relationship/Dependency. These identify how predecessor and successor tasks/activities and milestones are logically linked. If relationship is anything other than finish to start, it shall be explained in an associated notes field.

3.7.2.4.1.3.9 Total Float/Slack. The amount of time a task/activity or milestone finish date can slip before affecting the next hard constraint.

3.7.2.4.1.3.10 Free Float/Slack. The amount of time a task/activity or milestone can slip before it delays any of its successor tasks/activities or milestones.

3.7.2.4.1.3.11 Lag. An interval of time that must occur between a predecessor and successor task/activity or milestone. Negative lag is not encouraged. All lag shall be justified in the applicable notes field.

3.7.2.4.1.3.12 Driving Path. The longest sequence of tasks/activities from time now to an interim program milestone. If a task on a Driving Path slips, the interim program milestone may slip. Driving path may or may not be part of the program critical path.

3.7.2.4.1.3.13 Critical Path. A sequence of discrete tasks/activities in the network that has the longest total duration through the contract or project. Discrete tasks/activities along the critical path have the least amount of float/slack. Activities that contain "0" or negative total float are not necessarily the critical path but are critical tasks/activities. The critical path and near critical paths (reporting requirements for near-critical paths will be specified in the CDRL) are calculated by the scheduling software application. The guidelines for critical path and near-critical path reporting are as follows:

3.7.2.4.1.3.13.1 Methodology. The IMS software application computes a critical path and near-critical paths based on precedence relationships, lag times, durations, constraints, and status. Excessive constraints and incomplete, incorrect, or overly constrained logic shall be avoided because they can skew the critical path and near-critical paths.

3.7.2.4.1.3.13.2 Identification. The critical path shall be easily identified. The determination of critical path will consider all discrete authorized work, including subcontractor effort.

3.7.2.4.1.3.14 Constraints. Limits applied to network start and finish dates (e.g., finish no later than). Constraints impacting delivery milestones/activities shall be minimized if they affect the late dates. Typical types are "Must" or "No Later Than" constraints. All use of constraints affecting the early or late dates shall be justified as to why technically required in each submission of the IMS

by activity in the applicable notes field.

3.7.2.4.1.3.15 Current Schedule. The IMS reflects the current status and forecast. Forecast start and forecast finish dates, as recorded, shall not be earlier than the status date. Significant variances to the baseline schedule will be specified in the CDRL. Thresholds for reportable variances will be specified in the CDRL.

3.7.2.4.1.3.16 Baseline Schedule. Baseline dates in the IMS shall be consistent with the baseline dates in the PMB for all work packages, planning packages, and control accounts (if applicable). The baseline is established to the best expectations of performance at the time of establishment. The guidelines for maintaining the baseline schedule are as follows:

3.7.2.4.1.3.16.1 Baseline Schedule Changes. Changes to the baseline schedule shall be made in accordance with the contractor's EVM process when applicable. In the event that the IMS is implemented without an EVM requirement the change shall be made in accordance with the contractor's scheduler's change management process. Any movement of contractual milestones in the baseline schedule shall be derived only from either authorized contract changes or an approved over target schedule.

3.7.2.4.1.3.17 Schedule Progress. The IMS shall reflect actual progress and maintain accurate start and finish dates for all tasks/activities and milestones. The guidelines for reflecting schedule progress are as follows:

3.7.2.4.1.3.17.1 Actual Start and Finish Dates. Actual start and actual finish dates shall be recorded in the IMS. Actual start and actual finish dates, as recorded, shall not be later than the status date.

3.7.2.4.1.3.17.2 Progress Line. The progress line depicted in a Gantt chart shall be applied to the current schedule. It is the date all tasks/activities have been statused through and is also known as the status date of the IMS.

3.7.2.4.1.3.18 Retention of Data for Completed Tasks/Activities. Historical performance on completed tasks/activities shall be maintained electronically for analytical use. Historical performance shall be maintained at the time of key program events (Integrated Baseline Review, Critical Design Review, etc.) for all critical tasks/activities. Data to be retained includes logic, actual and baseline durations, actual and baseline start and finish dates, and the three-point estimates that were used before the task/activity started.

3.7.2.4.1.3.19 External Dependencies. As agreed to by the Government and contractor the IMS shall identify significant external dependencies that involve a relationship or interface with external organizations, including all Government furnished items (e.g., decisions, facilities, equipment, information, data, etc.) which shall be defined and documented in the CDRL. The required or expected

delivery dates shall also be identified in the IMS.

3.7.2.4.1.3.20 Schedule Margin. An optional management method for accommodating schedule contingencies. It is a designated buffer and shall be identified separately and considered part of the baseline. Schedule margin can be planned visually (task) or non-visually (GAP) as long as it never impacts a discrete successor task. For this definition the end task of an IMS, typically a customer delivery, is not considered discrete. It is the difference between contractual milestone date(s) and the planned date(s) of accomplishment. Schedule Margin, if any, shall only exist/be placed as the last task/activity/gap before a program event or end item deliverable. Any schedule margin planned as a task shall be clearly labeled "SCED MARGIN" and be under the control of the program manager. Schedule Margin shall not have successor logic ties to discrete tasks/activities either directly or indirectly. The status of schedule margin, including reasons and impacts for changes, if any, will be discussed in the narrative discussion. (See Section 3.5.)

3.7.2.4.1.3.21 Schedule Risk Assessment (SRA). A schedule risk assessment predicts the probability of project completion by contractual dates. Three-point estimates shall be developed for remaining durations of remaining tasks/activities consistent with the remaining authorized work. The remaining tasks/activities that meet any of the following criteria need more duration analysis than global banding: 1) driving path tasks/activities, 2) the secondary and tertiary driving path tasks/activities (as specified in the CDRL), 3) high risk tasks/activities in the program's risk management plan. 4) task/activities driving key program milestones/events. These estimates include the most likely, best case, and worst case remaining durations. They are used by the contractor to perform a probability analysis of key contract completion dates. The criteria for estimated best and worst case durations shall be applied consistently across the entire schedule and documented in the contractor's schedule notes and management plan. The guidelines for estimates are as follows:

3.7.2.4.1.3.21.1 Most Likely Estimate. Schedule durations based on the most likely estimates.

2.7.2.4.1.3.21.2 Best/Worst Case Estimates. Best and worst case assumptions shall be disclosed. The contractor schedule risk assessment shall explain changes to the critical path, margin erosion, and mitigation plans. It shall be incorporated into the contractor's program risk management process. The schedule risk assessment shall be submitted as specified in the CDRL and prior to the Integrated Baseline Review. The risk analysis may be performed within the IMS tool or within a separate risk tool as appropriate.

3.7.2.4.1.3.21.2.1 An SRA is required prior to an Integrated Baseline Review (IBR).

3.7.2.4.1.3.21.2.2 An SRA is required before processing an Over-Target Baseline (OTB) or an Over Target Schedule (OTS).

3.7.2.4.1.3.21.2.3 An SRA is required before implementing a cost and schedule reset, also known referred to as a single point adjustment.

3.7.2.4.1.3.21.2.4 The Government will determine the milestone target for the SRA based on program events.

3.7.2.4.1.3.22 Reserved Fields. The Government may reserve some fields and/or require the contractor to use certain fields for specific information. The requirement for reserved fields will be specified in the CDRL.

3.7.2.5 Monthly Analysis. Monthly schedule analysis is a monthly assessment of schedule progress to date and includes changes to schedule assumptions, variances to the baseline schedule, and causes for the variances, potential impacts, and recommended corrective actions to minimize schedule delays. The analysis shall also identify potential problems and an assessment of the critical, driving, and near-critical paths. Thresholds for reporting significant variances to the baseline schedule and near-critical paths will be specified in the CDRL. If Format 5 is required, the monthly analysis shall be submitted to the procuring activity in the Format 5 submittal.

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